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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,142

11/21/2006

Hiromi Takarada

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EXAMINER

SALVATORE, LYNDIA

ART UNIT

PAPER NUMBER

1786

NOTIFICATION DATE

DELIVERY MODE

04/01/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/594,142	<b>Applicant(s)</b> TAKARADA ET AL.	
	<b>Examiner</b> LYNDA M. SALVATORE	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,6 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's request for continuing examination (RCE), amendment and accompanying remarks filed 3/4/10 have been fully considered and entered. Claim 1 has been amended and claim 5 is canceled. Applicant's amendments are found sufficient to overcome the prior art made of record. Specifically, the cited prior art of Aranishi et al., US 6,984,631 teach a formulation comprising a plasticizer. As such, these rejections are hereby withdrawn. However, upon further consideration the following new ground of rejection is set forth herein below.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al., US 5,685,832 in view of Aranishi et al., US 6,984,631.

The patent issued to Chen et al., teach a cellulose ester woven or knitted fabric comprising cellulose acetate propionate (column 1, 60-column 2, 5 and column 2, lines 25-35). Chen et al., teach producing filaments and spinning said filaments into yarns (column 2, 25-35). Chen et al., teach a degree of substitution ranging from 1.7-2.6 (column 2, 20-25). With regard to the limitation pertaining to no plasticizer, Chen et al.,

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does not teach employing a plasticizer. As such, it is the position of the Examiner that the cellulose acetate propionate yarns of Chen et al., do not contain any plasticizer.

Chen et al., does not teach the claimed strength of the fibers, however, the patent issued to Aranishi et al., teach a melt-spun fiber comprising a mixture of a thermoplastic mixed cellulose ester and a plasticizer (column 3, 60-65). Said mixed ester is cellulose acetate propionate (column 10, 26-40). Aranishi et al., teach a degree of substitution of .5 to 2.9 per glucose unit (column 10, 41-45). Said fibers also have a strength ranging from .7 to 3.8 cN/dtex (column 9, 1-10). Said fibers have a size ranging from .5-100dtex (column 9, 20-30). Aranishi et al., teach that the fibers exhibit excellent mechanical properties and uniformity and are well suited for clothing (column 15, 30-40, column 16, 54-60). Aranishi et al., teach forming a knit fabric from the melt-spun filaments (column 17, 60-65 and column 19, 1-10).

Therefore, motivated by the desire to form a fabric with excellent mechanical properties and uniformity, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the fibers of Chen as continuous fibers and with the strength range as taught by Aranishi et al.

The combination of Chen et al., in view Aranishi et al., does not explicitly teach the diameter of the filament, however, it is the position of the Examiner that it would be obvious to one having ordinary skill in the art to form the filament with an optimal diameter as function of desired end use (e.g., for clothing). It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

The combination of Chen et al., in view Aranishi et al., does not teach the claimed molecular weight of the acyl units, initial tensile modulus, glass transition temperature or CV properties, however, it is reasonable to presume that said properties are inherent to the knitted or woven fabric taught by Chen et al., in view of Aranishi et al., Support for said presumption is found in the use of like materials such as a cellulose ester fiber and the use of like processes such as forming a knitted or woven fabric from melt-spun continuous filaments, which would result in the claimed glass transition temperature and CV properties. Applicant is invited to prove otherwise.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYNDA M. SALVATORE whose telephone number is (571)272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 27, 2010  
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/Lynda Salvatore/  
Primary Examiner